EXECUTIVE SUMMARY

This document presents the Engineering Evaluation and Cost Analysis (EE/CA) of a 45-acre portion of a mortar and small unit maneuver range known as the Former H Range, Camp Edwards. This 45-acre parcel lies within privately owned land, known locally as Camp Good News. American Technologies Incorporated (ATI) prepared this EE/CA Report to support the U.S. Army Engineering and Support Center, Huntsville (USAESCH), under Contract No. DACA87-00-D-0035, Delivery Order 0008.

ATI completed an OE removal action of a 10-acre portion of the site and meandering path geophysical investigation covering 6.56 acres of the remaining 45 acres in early 2002. The EE/CA that recommended a surface and sub-surface clearance on the 10-acre site was finalized in May 2002. The results of this previous removal action and investigation are summarized in this report and were used in developing EE/CA alternatives for the 45-acre portion of the Former H Range. The purpose of the EE/CA is to determine the most appropriate response action to address any ordnance and explosive (OE) risk at the 45-acre portion of the site. The following tasks were completed to achieve this purpose:

? perform a qualitative risk evaluation of OE hazards present;

? identify, develop, assess, and compare response action alternatives; and

? recommend a removal action alternative.

The Camp Edwards Former H Range is a 55-acre parcel located within Camp Good News, Sandwich, Massachusetts. Camp Good News, a 183-acre parcel, is private property that abuts a portion of the eastern boundary of the Massachusetts Military Reservation (MMR). The 55-acre portion of the Former H Range includes the 45-acre plot addressed in this report. The 10-acre plot includes the former mortar firing points and was addressed in Volume I EE/CA.

Between 1935 and 1941, the original H Range was constructed on the eastern edge of the J-3 wetland. Specifically, this area was constructed on the eastern edge of Greenway Road, near the intersection of Barlow Road. The range was used throughout the 1940s as a mortar training range where 60 millimeter (mm), 81 mm, and 3-inch Stokes mortars were fired from two firing points, positioned on the eastern side of Greenway Road, at targets within the impact area located to the west within current MMR property. The range was deactivated in the 1950s. Between the 1950s and the early 1960s, the Former H Range was known as the Squad Combat Firing Range and Small Unit Maneuver Range. Records indicate that .30 caliber, 5.56 mm, and 7.62 mm ammunition were used.

As noted above, the Volume I EE/CA Report addressed only a 10-acre portion of the 55-acre Former H Range parcel. This EE/CA Report (Volume II) is based on available information (including that gathered during the EE/CA investigation) about the mortar range and the Volume I report. This Volume II report also will summarize the recommendations and costs associated with the 45-acre site.

Based on the site conditions, historical information on the 45-acre site, OE risk impact assessment, and institutional analysis, five alternatives were defined and assessed as to determine the recommended response action. These alternatives included:

Alternative 1: No DOD Action Indicated (NDAI).

Alternative 2: Institutional Controls.

Alternative 3: Surface Clearance of OE over the 45-Acre Site with Institutional Controls.

Alternative 4: Surface and Subsurface Clearance of OE over the Area North of the J-3 wetland with Institutional Controls.

Alternative 5: Surface and Subsurface Clearance of OE over the 45-Acre Site.

Each of these alternatives was evaluated and compared against the short- and long-term aspects of three broad criteria: (1) effectiveness, (2) implementability, and (3) cost. A ranking system was used to categorize the alternatives and select the recommended response action that maximizes the protection of public health, welfare, and the environment while ensuring the effective use of resources. Based on this assessment, Alternative 4 is the preferred and recommended response action alternative because it would result in the identification and removal of OE items and would significantly reduce residual risk associate with OE hazards at a reasonable cost. The cost of implementing Alternative 4 is $356,997.